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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,176	09/17/2003	Robert W. Levi	42616-0500	3336

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EXAMINER	
TRAN, DALENA	

ART UNIT	PAPER NUMBER
3661	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/664,176	LEVI ET AL.	
	Examiner	Art Unit	
	Dalena Tran	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/29/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-13 are pending.

2. The prior art submitted on 4/29/04 has been considered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1,4-6,9-10, and 12, are rejected under 35 U.S.C.102(e) as being anticipated by Ladetto et al. (US 2003/0018430 A1).

As per claim 1, Ladetto et al. disclose a navigation device comprising: an electronic compass to detect an orientation and provide a corresponding heading signal (see at least [0014]), one or more motion sensing device to detect motion along different axis and provide corresponding motion signals (see at least [0015] through [0020]; [0027] through [0044]; [0053] through [0057]; and [0445] through [0446]), and a processing unit communicatively coupled to the electronic compass and one or more motion sensing device to received the heading signal and one or more motion signals, determine a position and orientation, and automatically provide different navigation information depending on the orientation of the navigation device (see at least [0169] through [0178]).

As per claim 4, Ladetto et al. disclose the navigation device automatically switches between different modes of operation depending on the orientation of the navigation device, and provide either heading or position information, depending on the mode of operation (see at least [0232] through [0234]).

As per claim 5, Ladetto et al. disclose if the navigation device is affixed to a user and the device is in a primary orientation, navigation calculations are made according to bipedal ambulation to provide a position (see at least [0232] through [0234]), if the navigation device is affixed to a user and the device is in a secondary orientation, navigation calculations are made according to crawling ambulation to provide a position (see at least [0236]), and if the navigation device is hand held, only azimuth data is provided to the user (see at least [0283] through [0287]).

As per claim 6, Ladetto et al. disclose a communication port to transmit navigation information (see at least [0168]).

As per claim 9, Ladetto et al. disclose a method comprising: determining the orientation of a navigation device (see at least [0186] to [0187]), automatically selecting a first motion measurement algorithm if the navigation device is in a first orientation (see at least [0232] through [0234]), automatically selecting a second motion measurement algorithm if the navigation device is in a second orientation (see at least [0236]), and providing a position according to the pedometry algorithm selected (see at least [0184] to [0185]).

As per claim 10, Ladetto et al. disclose the orientation of the navigation device is determined relative to a horizontal plane (see at least [0046]).

Claim 12, is a machine readable medium claim corresponding to method claim 1 above. Therefore, it is rejected for the same rationales set forth as above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2-3,7-8,11, and 13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladetto et al. (US 2003/0018430 A1) in view of Kubo et al. (US 2002/0089425 A1).

As per claim 2, Ladetto et al. do not disclose provide different navigation information depending on whether the navigation device is affixed to a user or not. However, Kubo et al. disclose the processing unit is further configured to provide different navigation information depending on whether the navigation device is affixed to a user or not (see at least [0032]; [0061]; [0065] through [0067]; and [0074]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Ladetto et al. by combining provide different navigation information depending on whether the navigation device is affixed to a user or not for accurately determine a user heading and position information.

As per claim 3, Ladetto et al. disclose a visible indicator to provide navigation information to a user, and a holster to affix the navigation device to a user (see at least [0168], and [0231]).

As per claim 7, Ladetto et al. disclose obtaining an azimuth heading (see at least [0084] through [0088]), calculating a dead reckoning position if the navigation device is affixed to the

user, providing azimuth heading and dead reckoning position if the navigation device is affixed to the user (see at least [0108] through [0113]; and [0274] through [0276]), and providing azimuth heading otherwise (see at least [0280] through [0282]). Ladetto et al. do not disclose determining whether the navigation device is affixed to a user. However, Kubo et al. disclose determining whether the navigation device is affixed to a user (see at least [0032]; [0061]; [0065] through [0067]; and [0074]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Ladetto et al. by combining determining whether the navigation device is affixed to a user to determine appropriate user position and heading information.

As per claim 8, Ladetto et al. disclose determining an orientation of the navigation device relative to a horizontal plane (see at least [0046]), calculating a dead reckoning position if the navigation device is affixed to the user (see at least [0232] through 0234]), and calculation the dead reckoning position according to crawling ambulation when the navigation device is affixed to the user and is in a second orientation (see at least [0236]).

As per claim 11, Ladetto et al. disclose automatically selecting the first motion measurement algorithm if the navigation device is in the first orientation and affixed to the user ((see at least [0232] through 0234]), automatically selecting the second motion measurement algorithm if the navigation device is in the second orientation and affixed to the user (see at least [0236]). Ladetto et al. do not disclose determining whether the navigation device is affixed to a user. However, Kubo et al. disclose determining whether the navigation device is affixed to a user (see at least [0032]; [0061]; [0065] through [0067]; and [0074]). Ladetto et al. also do not explicitly disclose suspending all motion measurement calculation if the navigation device is not

affixed to the user. However, it is obvious that when the navigation device is not affixed to the user, there is no motion detected, and cannot measure any heading or position, therefore, all motion measurement calculation will be suspended. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Ladetto et al. by combining determining whether the navigation device is affixed to a user to determine appropriate user position and heading information.

Claim 13, is a machine readable medium claim corresponding to method claim 8 above. Therefore, it is rejected for the same rationales set forth as above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

. Layson, Jr. (5,731,757)

. Walters et al. (6,801,855)

. Darnell et al. (5,043,736)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Dalena Tran

Dalena Tran

December 9, 2004